

Session, Segmented Session, and Acute RPE and Affective Responses to Self-selected Treadmill Exercise

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Session RPE (S-RPE) and session affective response (S-AR) are post-exercise estimates of the global acute RPE/AR experience rated soon after exercise completion. Recently, S-RPE and S-AR were greater than the mean of acute momentary values (A-RPE, A-AR) rated during self-selected (SS) cycle ergometer exercise. S-RPE/AR were representative of responses at either the beginning (S-AR) or end (S-RPE) of SS exercise, but not the global exertional/affective experience (Haile et al. 2012). **Purpose:** To compare S-RPE/AR with segmented session (SegS) RPE/AR, which involved rating session responses for the first half of exercise (Seg1) separately from the second half of exercise (Seg2), for SS treadmill exercise. **Methods:** Thirteen recreationally active subjects (7 M, 6 F; 20.9±1.2 yr) participated in 2 treadmill exercise sessions. Session 1 involved a $\text{VO}_{2\text{MAX}}$ test during which RPE and AR were rated at the end of each stage using the OMNI Scale and Feeling Scale, respectively. Session 2 involved 20 min at SS intensity. Grade was maintained at 1%. After a 5-min warm-up, subjects adjusted treadmill speed. Readjustment of speed was allowed at 5, 10, and 15 min. RPE and AR were rated at the end of each 5-min period. Following a 5-min cool-down and 15-min recovery, S-RPE, S-RPE-Seg1, S-RPE-Seg2, S-AR, S-AR-Seg1, and S-AR-Seg2 were rated in random order. The mean of Seg1 and Seg2 was taken as the SegS value for each variable (SegS-RPE, SegS-AR). Repeated-measures ANOVAs were used to compare: 1) mean A-RPE, S-RPE, and mean SegS-RPE; and 2) mean A-AR, S-AR, and mean SegS-AR. **Results:** A significant main effect was observed for RPE [$F(2,24)=4.40$, $p=0.02$] but not AR [$F(2,24)=2.41$, $p=0.11$]. *Post hoc* analysis revealed that S-RPE (4.6 ± 1.7) and SegS-RPE (3.7 ± 1.6) were different, but both were similar to mean A-RPE (4.3 ± 1.7). S-AR (2.8 ± 1.8), SegS-AR (2.7 ± 1.6) and mean A-AR (3.2 ± 1.5) were similar. **Conclusion:** S-RPE/AR provide post-exercise estimates of the global exertional/affective responses to SS treadmill exercise. SegS-RPE/AR may provide additional information regarding the perceptual/affective memory of different segments of previous exercise bouts